



Federal Aviation Administration

Memorandum

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From: Manager, Flight Procedure Standards Branch, AFS-420

To: Manager, National Flight Procedures Group, AJW-32

Prepared by: Thomas Nichols, Flight Procedure Standards Branch, AFS-420

Subject: Clarification of United States Standards for Terminal Instrument Procedures (TERPS)
Paragraphs 322 and 330e

PURPOSE: This supersedes Flight Technologies and Procedures Division memorandum dated March 15, 2005, (same subject) and provides clarification to Order 8260.3, Volume 1, paragraph 322 "*MDA FOR CIRCLING APPROACH*" and 330e "*CIRCLING LANDING MINIMUMS*".

DISCUSSION:

The previous policy memorandum did not adequately define policy for determination of the circling minimum decision altitude (MDA) when a precision approach (PA)/approach with vertical guidance (APV) line of minima is not accompanied by a nonprecision approach (NPA) line of minima. Additionally, it did not address Order 8260.19C, Flight Procedures and Airspace, paragraph 404u, which also provides supplementary guidance to Volume 1, paragraph 330.

POLICY:

Order 8260.3 is clarified as follows:

Paragraph 322 should be interpreted as follows;

322. MDA FOR CIRCLING APPROACH. The height of the circling MDA above the airport (HAA) must not be less than the minimum shown in paragraph 351. In addition, the MDA must provide at least the minimum required final obstacle clearance in the final approach segment and the minimum required circling obstacle clearance in the circling approach area. It must also meet the missed approach requirements specified in paragraph 321. Round the MDA to the next higher 20-foot increment (for example, 2,109 feet rounds to 2,120). The circling MDA must not be above the FAF altitude or below the MDA of the highest non-vertically guided line of minima* published on the same approach. When PA or APV procedures are published without an accompanying non-vertically guided line of minima, the circling MDA must not be above the PFAF altitude or below the straight-in DA of the highest PA or APV line of minima* published on the same procedure.

*Note: *When more than one line of minima is published, compare the straight-in MDA for each category, and select the line with the highest MDA/DA value. However, when multiple straight-in MDAs are published for the same line (i.e. with/without stepdown fix, local/remote altimeter) a CMDA may be established to correspond with each.*

EXAMPLE:

Nominal CMDA based on evaluation of circling maneuvering area = 1360.
 S-LOC MDA without DME stepdown fix = 1400 (> nominal 1360).
 S-LOC MDA with DME stepdown fix = 1340 (< nominal 1360).
 The published CMDA without DME = 1400; with DME = 1360.

Paragraph 330 should be interpreted as follows;

330. ESTABLISHMENT OF VISIBILITY MINIMUMS.

a. Straight-in minimums may be established for an approach category when:

- (1) **Applicable straight-in alignment criteria** is met, AND
- (2) **The descent gradient** meets final approach segment DG tolerances.

b. Establish Circling-only MDAs and visibilities when straight-in minimums are not authorized or required. Apply paragraph 351 when establishing circling visibility minimums. When published in conjunction with straight-in minima, circling visibility must NOT be less than the no-light visibility of the straight-in procedure used to determine the published circling MDA (normally the visibility associated with non-vertically guided procedure except when a PA or APV procedure is published without an accompanying non-vertically guided line of minima).

c. The minimum visibility prior to applying credit for approach lights (no-light visibility) must be the higher of;

- (1) **MAP-to-threshold distance** (where the MAP is located prior to the threshold), rounded to the next higher reportable visibility value appropriate for the airport. See **Federal Meteorological Handbook No. 1 - Surface Weather Observations and Reports**, Chapter 6 (<http://www.ofcm.gov/fmh-1/fmh1.htm>)

EXCEPTION: When the MAP-to-threshold distance is more than 2 SM, procedures meeting straight-in alignment (regardless whether straight-in minimums are authorized) may be excluded from this requirement when annotated for "Fly Visual to Airport" in accordance with Order 8260.19 paragraph 855k. In this case, the published visibility shall be the greater of 2 SM or the visibility required by Table 6. Approach light credit IAW paragraph 340 is not authorized for "Fly Visual to Airport" procedures.

- (2) **Non-vertically guided procedures only;** the visibility required by paragraph 331, tables 6 and 6A.

- (3) **The visibility required** by Vol. 1 paragraph 350, table 9 (table 10 for DoD procedures), along with other criteria-specific standards (e.g. Vol. 3 table 2-2b for precision (USAF N/A), Order 8260.50 Table 2-1B (LPV), Order 8260.52, paragraph 1.14, etc.)

d. Effect of obstacles. When obstacles penetrate the visual assessment surfaces, published visibility minimums must meet or exceed prescribed minimum values (See paragraph 251 for potential visibility restrictions).

Order 8260.19 is clarified as follows:

Do not apply paragraph 404u.

This guidance is applicable to all new procedures, and must be applied to existing procedures during the next biennial review. The pertinent section of this guidance is rescinded upon publication of the next change to the subject directive.

Please contact Thomas Nichols, AFS-420, at (405) 954-4164 with any questions concerning this policy.